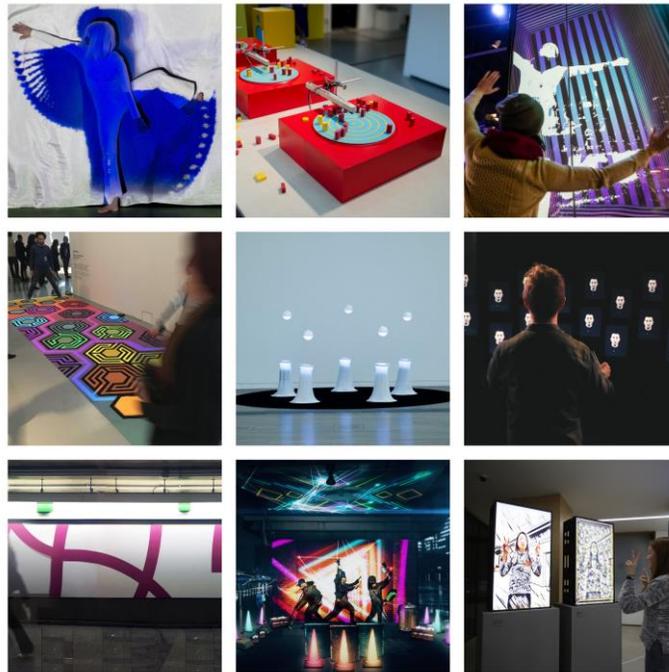




# Teknopolis™ 2020, BAM's interactive digital arts showcase returns for the fourth year offering the latest in technology-fueled arts featuring innovative independent and experimental work, Feb 22—Mar 8

Twenty highly interactive installations (AR, VR, MR), six 360° films, with artists from 12 different countries, presenting over five levels at the BAM Fisher



To view multimedia assets, please click [HERE](#)

## [Teknopolis™ 2020](#)

**BAM Fisher** (321 Ashland Pl)

Feb 22 & 23; Feb 27—Mar 1; Mar 5—Mar 8

2-hour 30 min timed-entry sessions

Tickets: \$18 (children ages 6—8) No VR; \$25 for youth (ages 9—17); and \$45 (adults 18+)

Ages 6+

**Brooklyn, NY/January 27, 2020**— BAM's popular, interactive arts showcase Teknopolis™ returns for its fourth year with an ambitious new program designed to inspire creativity, connect with the future, and embolden a renewed sense of play for all ages. Teknopolis offers the latest in technology-fueled art and participatory environments. It features work by leading artists and technologists who are pushing the artistic boundaries of VR, AR, mixed reality (MR), 360° films, and sensor-based technology and displays, and whose work sits at the crossroads of art, film, music, and technology. This year, the three-week-long showcase includes 20 highly interactive installations and six 360° films with artists from 12 different

countries, presenting their work over five levels of the BAM Fisher building, from February 22 to March 8. Many of the exhibitions allow participants to interact with the installations directly.

Named for the Greek words *Tekne* (craft or art) and *Polis* (ideal city)—*Teknopolis* is curated by BAM's Director of Education & Family Programming, **Steven McIntosh**. "For the last four years, the vision for Teknopolis has evolved and grown with the expanding array of exciting new work fueled by the limitless imaginations of artists and new technologies," said McIntosh. "This year's artists push the boundaries of a host of new technologies in powerful and surprising ways that change the perception, not just of what the future could look like but what the future could sound and feel like. With more innovative installations for people of all ages to touch, play, create, and engage with, Teknopolis 2020 is the can't miss event this year."

Tickets for Teknopolis are on sale now.

2-hour 30 min timed-entry sessions

Teknopolis tickets are \$18 for children (ages 6—8), No VR

Teknopolis tickets are \$25 for youth (ages 9—17) and \$45 for adults (ages 18+)

Each person must have a ticket to be admitted, regardless of age. Children under age 12 must be accompanied by an adult. For more information call 718.636.4100 or visit [BAM.org/kids](http://BAM.org/kids).

For press information on Teknopolis please contact Cynthia Tate at 718.724.8022 or [ctate@BAM.org](mailto:ctate@BAM.org)

## **About the Installations**

### **Colors**

By COMPAGNIA TPO/ Rossano Monti (Computer Engineer) (Italy)

Fishman Space

Blurring the lines between art and play, this installation blends environmental performance and immersive technology. As users move around the interactive canvas, sensory-based technology turns their shadows into colorful objects and settings that appear and disappear, creating momentary works of art.

Compagnia TPO is the world's foremost pioneer in interactive performance media—creating works for proscenium and alternative spaces—melding astonishing digital imagery with multi-disciplinary performance techniques in the use of music, dance, art, sculpture, digital media, computer technology, lighting, and sound. This installation allows the visitor to be an active participant in the whimsical dance that took place between the performer and the technology in their live dance performance *Colors* (2019 BAMkids Winter/Spring). The Italian theater ensemble also performed at BAM in its popular pieces *Bleu!* (2015) and *Kindur* (2012).

### **SMing**

By Superbe & Dogstudio (Belgium, USA)

Fishman Space

From Superbe & Dogstudio, the multi-award-winning studio behind *Geometric Music* (Teknopolis 2019), comes *SMing*, an interactive choir installation offering users the chance to simultaneously be both conductor and an entire choir. Users make a brief recording of their voice, which is then multiplied and processed to create a full choir. Using a sensitive conducting baton, users can change pitch and tempo to create their choral masterpiece. *SMing* is designed by Superbe and Dogstudio, international sister companies based in Chicago, Brussels and Mexico City that take pride in crafting immersive digital products and emotion-filled interactive installations.

### [Light Pong](#)

By David Åhström, Håkan Lidbo, and Max Björverud (Sweden)

Fishman Space

*Light Pong* brings together music and gameplay in this futuristic installation featuring a projection-mapped carpet. Players send rays of light across the floor by standing, jumping, and dancing on the pressure zones, shooting light to their opponent on the other side. Movements and events are synchronized with sounds as the game becomes a melodic composition. *Light Pong* was created by artists Max Björverud, Håkan Lidbo, and David Åhström at Rumtiden Idea Lab in Stockholm, Sweden.

### [Virtual Growth](#)

By Lieven van Velthoven (The Netherlands)

Fishman Space

*Virtual Growth* is a real-time interactive projection mapping installation. Light grows to trace the environment, illuminating hidden edges and organically interacting with people and objects. Users become a living light artwork as the installation responds to their bodies, and they become part of the larger painting. Netherlands-based artist Lieven van Velthoven designs interactive software, games, and digital art.

### [ObOrO](#)

By Ryo Kishi (Japan)

Fishman Space

Illuminated spheres hover in the air with no support from strings or wires in this interactive kinetic sculpture installation. The spheres continually turn and vibrate like living organisms, responding in unexpected ways to visitors' interactions with the air around them. Japan-based artist Ryo Kishi's interest is in spreading art expression through technology. His experimental projects focus on experiences rather than techniques and tools.

### [Algae: Lux, Aux, Nox](#)

By Marpi Studio (Marpi, Bent Stamnes, Will Atwood) and Looking Glass Factory (USA/New York)

Fishman Space

Three-dimensional holograms provide an interactive digital aquarium of fascinating creatures, designed by the Polish-born, San Francisco-based artist Marpi and showcased on a light field display called the Looking Glass. Marpi's Algae installations include *Lux*, *Aux*, and *Nox*. These 3D holograms respond to outside manipulation and can be viewed from all angles, allowing for a shared experience among users. Looking Glass Factory, the creators of the Looking Glass technology, have provided a way to view 3D assets as holograms without the need for VR headsets. With offices based in Brooklyn and Hong Kong, the company became the most widely adopted holographic light field display in the world in 2019.

Marpi's mission is to build tools that enable people to create digital art that they can claim as their own. His art is interactive, scalable, and multi-platform. By creating windows into the same universe, Marpi provides an empty canvas where the art does not exist until people create it. Marpi's career started in the commercial world for clients, including Google, Microsoft, and Adobe. Marpi returns to BAM following the presentation of popular installations *Mass Migrations*; *Binary Gardens*; and *Melting Wall* (Teknopolis, 2018).

### [Style Transfer Mirrors](#)

By Gene Kogan (USA/New York)

Fishman Space

*Style Transfer Mirrors* allows users to see themselves reflected and depicted in various iconic painting styles. It uses a method called "style transfer," which regenerates one image in the style of another image. Participants see themselves transformed into a work of art which they then bring to life with their movement. "Cubist Mirror," the original "mirror" in New York artist Gene Kogan's series, reflects the world in the style of a Cubist painting and has since been joined by various iconic paintings.

Gene Kogan is an artist and a programmer who is interested in autonomous systems, collective intelligence, generative art, and computer science. He is a collaborator within numerous open-source software projects. He gives workshops and lectures on topics at the intersection of code and art.

### [FIGURATION](#)

By MASARY Studios (USA/ Massachusetts)

Fishman Space, Balcony

*Figuration* illuminates the human body through light and sound. Using custom-built software and a stereoscopic live camera, users are invited to interact with the piece as their movements are presented in real-time on a large display. The camera finds human silhouettes and displays them in various colors, filters, and animations on the screen, encouraging social interaction and play to create complex, dynamic visuals. When the body moves, twists, reaches, and hops, it sometimes trigger a specific set of sounds creating a one-of-a-kind sound score. Based in Boston, Masary Studios is a team of artists transforming built environments through live music performance and video projection mapping. By unlocking the hidden possibilities of an urban landscape, Masary Studio's works are at once a performance, a dissection of architecture, and an immersive visual spectacle.

### [Ghost Sine](#)

By Christopher Short (USA/New Mexico)

Fishman Space, Balcony

*Ghost Sine* is an interactive laser display that explores the relationship of shapes, motion, and symmetries, designed by New Mexico-based mixed media artist Christopher Short. Using ultraviolet projection on a slow phosphor screen, motion acquires ghostly trails. Patterns of light and dark emerge that constantly refresh and fade in a spirograph of symmetry and photon decay, crystal structures, sacred geometries, and organic shapes. Participants play with the global effects and shape motion of the laser projections by using an iPad control panel. Short is a mixed media artist who incorporates graphic elements, laser engraving, and photography in his work. His work incorporates video projection, strobes, flashlights, and custom laser hardware that he designs and builds. Short has won 19 International Laser Display Association artistic awards for his laser art and was recently featured on the *BBC World News Travel* show.

### [Singing Tunnels](#)

By Max Björverud and Håkan Lidbo (Sweden)

Fishman Space, Balcony

A regular hallway becomes a music-making chamber in this interactive sound installation by Swedish artist Max Björverud and Håkan Lidbo. Participants sing or play a single note into the space. A microphone picks up the sound, detects the pitch, and plays back a sampled female voice singing the same pitch, creating a hallway that sings along with visitors. The tunnel only

responds to singing, not talking, shouting, or traffic noise. The more people singing, the more melodies the hallway will learn. Björverud is a sound artist working with technology, interactive installations, and urban sound.

### [Color Wheel](#)

By Ligaiya Romero and Nick Capezzer (USA, Korea)

Tribeca Film Institute, Interactive Programs

Fishman Space, Balcony

Ages 9+

The *Color Wheel* VR series includes 360-degree meditations that separately explore one vibrant color at a time. Featuring colorful scenes around the globe, each episode uses mindfulness and color association to ask, "how does this color make you feel?" Tribeca Film Institute champions storytellers to be catalysts for change in their communities and around the world. Ligaiya Romero is a documentary filmmaker and visual artist based in both Durham, NC and Brooklyn, NY. They work with collective memory and the decolonial imagination. Nick is a Korean documentary filmmaker and co-founder of player piano productions.

### **Interactive Virtual Reality Installations**

**Hillman Studio**

#### [Nature Abstraction 2.0](#)

By Matteo Zamagni in collaboration with Marco Martignone (Creative Developer) and Daniel

Ben Hur (Sound Artist) (UK)

Fisher Hillman Studio

Ages 9+

*Nature Abstraction 2.0* is an immersive sensory experience designed to play with perceptions and induce a meditative state. It is inspired by visual artist Matteo Zamagni's extensive research into the immersive sensations tied to "consciousness, quantum physics, neuroscience, sacred geometries, fractals, ancient civilizations, the etheric body, the astral plane, and so on." Users explore an ever-changing 3D geometric environment in real-time, accompanied by a musical score by Daniel Ben Hur designed to facilitate meditative state and relaxation. Like a digital kaleidoscope, users can shift the topography of the visual environment through remote controls, gaining insight into the seemingly familiar mathematical structures of biological and non-biological forms. *Nature Abstraction 2.0* will leave users pondering how accurate their perceptions really are.

Zamagni is an Italian-born, new media artist and director based in London. He uses technology as a tool to create immersive and interactive videos, installations, and performances. His research stands between spirituality, art, and science to create works that explore themes of consciousness, the body as a perceptive interface, the expansive impact of mankind on the ecosystem, and the recursive relation of natural phenomena spanning across the observable world.

#### [Reincarnation - Virtual Reality Recreation of Yves Tanguy's World](#)

By Jing Yan (USA/California)

Fisher Hillman Studio

Ages 9+

Adapted from the works of French Surrealist painter Yves Tanguy, *Reincarnation* is a virtual reality (VR) art experience that invites audiences into a surreal symbiosis of abstract creatures where they can encounter primitive life forms at different scales, and embody and interact with the creatures—challenging the anthropocentric worldview in an artificial intelligence era.

Creator Jing Yan is a media artist and interaction designer whose work seeks and argues for essential qualities of materials, living beings, and hybrid entities through computational virtual and physical environments.

### [Half + Half](#)

By Normal (USA/New York)

Fisher Hillman Studio

Ages 9+

*Half + Half* is a multiplayer VR game designed with a focus on creating fun and meaningful connections between players. The virtual installation includes five unique spaces where players can meet up and take part in activities together using real-time voice chat, expressive avatars to communicate with body language, and game mechanics. Swim in the ocean. Glide through clouds. Play human Tetris with friends, or Hide & Seek where hiders are two inches tall, and seekers are as tall as buildings. As a concept, *Half + Half* explores how we can spend time together more meaningfully in the future despite being physical distances apart from those we love. *Half + Half* launched on the Oculus Quest and Rift in 2019. The game was conceived and developed by Normal, a research-led VR & AR studio. Since its inception in 2016, Normal has released Normcore, a Unity plugin to make adding multiplayer to any game simple, and *Half + Half*.

### [Bogo](#)

By Oculus (USA/Washington)

Fisher Hillman Studio

*Bogo* is a VR creature simulation that lets players engage with a highly reactive, pet-like alien creature. Players can play fetch, jump into challenging mini games, feed it, and help it thrive—all in virtual reality. *Bogo* was created to explore the affordances of tetherless, self-contained VR with an emotionally engaging, broadly appealing game-like experience that draws from a history of pet games but be uniquely VR-first. Oculus redefined the digital gaming and entertainment industry with its reality and distance defying VR headsets.

### [Make Music Bar](#)

Fisher Lower Lobby

### [Star Jam Street – Musical Cleaning Instrument Reverie](#)

By TETSUJIN - AUDIO VISUAL / Tetsuto Takahashi and Maiko Moshimura (Japan)

Fisher Lower Lobby

Interactive performance art transforms everyday objects into rock instruments. Users can play a broom guitar, dustpan keyboard, and duster drum. When the objects are activated through motion—similar to playing air guitar—the position and pressure connect with a sensor and convert to MIDI data, which causes video and lighting to run. Anyone can pick up and play easily, and more advanced musicians can create songs. Tetsuto Takahashi and Maiko Moshimura are audiovisual and media artists based in Japan. Their work focuses on the interconnectivity of audio and visuals to emotional expression, which allows them to create “audiovisual music.”

### [Beat Blox](#)

By Per Holmquist (Artist), Jacob Stenman (Advisor), and Mårten Hedlund (Full stack Developer) (Sweden)

Fisher Lower Lobby

*Beat Blox* is a series of three colorful turntables loaded with physical sequencers—electronic instruments that translate basic analog gestures into digital notes. As users arrange and

manipulate blocks on top of the turntables, they create complex compositions with sensors and MIDI sounds controlled by Arduino micro-controllers. The resulting musical experience is equal parts intuitive and whimsical. It's all the fun of musical creation in a language anyone can appreciate. Swedish-based artist Per Holmquist is interested in blending the lines of artist and observer, where his work is a tool for the user to create rather than to observe.

### [Aerodrums](#)

By Richard Lee and Yann Morvan (UK, Ireland)  
Fisher Lower Lobby

*Aerodrums* is an air-drumming instrument that allows drumming without a drum kit. The drums are based on motion capture technology. A bright light illuminates retro-reflective markers on the users' sticks and feet. A high-speed camera tracks the motion of these markers to determine when sounds should be triggered in response to their movement. *Aerodrums* was created by Irish designer Richard Lee and French designer Yann Morvan. They are former researchers from the computer graphics lab at Trinity College Dublin.

### **Augmented Reality ARcade** **Fisher Rooftop**

#### [Doodle Lens](#)

By Aidan Wolf (USA/California)  
Fisher Rooftop

Drawings leap off the page and come to life in this augmented reality app by Aidan Wolf. Users create their own augmented reality (AR) doodles, which can be animated and layered into scenes, then digitally incorporated into live video of the surrounding area. Looking through the app, users can discover the doodles of those who came before, as well as leaving their own mark.

#### [YoPuppet](#)

By Hart Woolery (USA/California)  
Fisher Rooftop

Virtual hand puppets come to life through augmented reality in this experience designed by 2020CV creator Hart Woolery. *YoPuppet* uses technology to capture 22 points on participants' hands in real-time and map them to a digital puppet's face, allowing users to manipulate the puppet as it appears on the screen. Users can choose between a variety of characters, from animals to aliens, and use voice-changing effects to manipulate the sound of the puppet's voice. Woolery's 2020CV Inc. creates augmented reality experiences using machine learning and computer vision.

### **360° Film Lounge** **Fisher Rooftop**

#### [The Free Fall Dancer](#)

Directed by Chloé Rochereuil (France)  
TARGO films  
Fisher Rooftop

Skydiving, freefalling, and dancing in mid-air. Viewers will follow the story of how a classical dancer, Sophia Pécout, turned to the skies and became the skydiving world champion. Presented in partnership with TechRow ([www.techrow.org](http://www.techrow.org)).

Chloé Rochereuil is the director and co-founder of TARGO—an award-winning entertainment company for the immersive age. The company leverages technology and innovative storytelling to bring audiences meaningful, spectacular, and original stories.

### [The Overview Effect](#)

Directed by Chloé Rochereuil (France)

TARGO films

Fisher Rooftop

“The Overview Effect” is a cognitive shift in awareness reported by the astronauts who saw the Earth from space. Senior astronaut Jean-François Clervoy is one of the few to have experienced seeing the earth in this way. Viewers will discover his story from a legendary astronomical observatory at the top of the Pyrenees Mountains before going to space.

Presented in partnership with TechRow ([www.techrow.org](http://www.techrow.org)).

### [Armonia](#)

Directed by Bracey Smith (USA/New York)

Tribeca Film Institute, Interactive Programs

Fisher Rooftop

Armonia reimagines the experience of the emotionally dynamic piano concerto “Armonia Degli Uccelli (Harmony of the Birds),” as a fantastic otherworldly planet. The viewer has a front row seat to the concert as the music comes alive through the gestures and actions of crystal-winged creatures searching for harmony. Presented in partnership with TechRow

([www.techrow.org](http://www.techrow.org)).

Bracey Smith is the chief creative developer at Potential Synergy, a VR and future tech startup based in NY. He’s a creative generalist who loves to play at every end of the immersive media development line.

### [Remembering Our Ancestors: Ch'aak' S'aagi \(EAGLE BONE\)](#)

Directed by Tracy Rector (USA/New York)

Tribeca Film Institute, Interactive Programs

Fisher Rooftop

*CH'AAK' S'AAGI (EAGLE BONE)* is one of the first VR pieces ever created by a Native American filmmaker. The film is a collective step in a new direction of visual storytelling rooted in being unapologetically Indigenous. Through freestyle spoken word and lush Pacific Northwest scenes, viewers enter a VR journey of remembrance and reflection on the lessons of the old ones. Presented in partnership with TechRow ([www.techrow.org](http://www.techrow.org)).

Tracy Rector is a mixed race (Choctaw/Seminole) filmmaker, curator, educator, co-founder of Longhouse Media, and community organizer based in Seattle. Her award-winning films have been screened worldwide at festivals, exhibitions, and on television.

### [Spirit Robot](#)

Directed by Jonathan Dotse (USA, Ghana)

Tribeca Film Institute, Interactive Programs

Fisher Rooftop

VR documentary which explores the Chale Wote Street Art Festival in Accra, Ghana. Viewers experience the event firsthand as they stroll through the streets of Accra and celebrate the boundless creativity in dance, music, visual art, and theater. Presented in partnership with

TechRow ([www.techrow.org](http://www.techrow.org)).

Jonathan Dotse is a science fiction writer, Afrofuturism, and digital hypermedia artist based in Accra, Ghana. He launched AfroCyberPunk Interactive, a digital hypermedia creative studio and publishing house which aims to pioneer new forms of immersive and interactive content that encapsulates a wide spectrum of traditional and new media into seamless, multidimensional experiences.

### [Out of the Blue](#)

Directed by Sophie Ansel (France, Australia)

Narrator: Sylvia Earle, Judith Castro Lucero

Fisher Rooftop

Out of the Blue is the inspiring story of the legacy inherited by the children of Cabo Pulmo. The film invites viewers into an incredible journey through time, from past to present, inside the marine heritage of a fishermen community in Mexico, in the region of Baja California Sur. Presented in partnership with TechRow ([www.techrow.org](http://www.techrow.org)). Sophie Ansel is a French writer, author, and storyteller who focuses on human rights and environmental issues.

### Credits

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### General Information

BAM Howard Gilman Opera House, BAM Rose Cinemas, and BAMcafé are located in the Peter Jay Sharp building at 30 Lafayette Avenue (between St Felix Street and Ashland Place) in the Fort Greene neighborhood of Brooklyn. Harvey Theater at BAM Strong is located two blocks from the main building at 651 Fulton Street (between Ashland and Rockwell Places). Both locations house Greenlight Bookstore at BAM kiosks. BAM Fisher, located at 321 Ashland Place, houses the Judith and Alan Fishman Space and Rita K. Hillman Studio. BAM Rose Cinemas features first-run independent and foreign film and repertory programming. BAMcafé, operated by Great Performances, offers varied light fare and bar service prior to BAM Howard Gilman Opera House evening performances.

Subway: 2, 3, 4, 5, Q, B to Atlantic Avenue – Barclays Center (2, 3, 4, 5 to Nevins St. for Harvey Theater) D, N, R to Pacific Street; G to Fulton Street; C to Lafayette Avenue

Train: Long Island Railroad to Atlantic Terminal – Barclays Center

Bus: B25, B26, B41, B45, B52, B63, B67 all stop within three blocks of BAM

For ticket information, call BAM Ticket Services at 718.636.4100, or visit [BAM.org](http://BAM.org).

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